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BAQ Engineering Services Division

|                       |                   |                       |                |
|-----------------------|-------------------|-----------------------|----------------|
| <b>Company Name</b>   | MH Industries LLC | <b>Permit Writer:</b> | Susan Peterson |
| <b>Permit Number:</b> | 2060-0540-CA      | <b>Date:</b>          | <b>DRAFT</b>   |

**DATE APPLICATION RECEIVED:** September 28, 2017  
October 17, 2017 (revised facility-wide emissions summary, Attachment A)  
January 30, 2018 (revised Form D-2569 and facility-wide emission tables)

**FACILITY DESCRIPTION:** MH Industries, LLC is a plastic automotive parts manufacturing facility in Greer, South Carolina. The facility manufacture and/or paint bumpers, spoilers and seat parts for automobiles. The primary process equipment includes thermoplastic injection molders, paint booths and curing ovens.

There are three types of injection molding machines: one (1) large injection molder for bumpers, four (4) mid-size injection molding machines for spoilers, and fifteen (15) small injection molders for seat parts. The bumper production capacity is limited by the cycle times of the injection molding machines and the speed of the painting/coating line conveyors. Bumpers can be produced at a maximum rate of 60 bumpers per hour. Spoilers can be produced at a maximum rate of 240 spoilers per hour. Seat parts can be produced at a maximum rate of 240 seat parts per hour. The paint line capacity is based on the number of pallets that can be conveyed through the coating line and the number of bumpers per pallet. A pallet can support a maximum of four (4) bumpers and can be conveyed at a maximum rate of fifteen (15) pallets per hour. Thus the maximum painting production is 60 bumpers per hour per coating line. There will be one coating line comprising three (3) coating booths installed.

**PROJECT DESCRIPTION:** Revise Construction Permit 2060-0540-CA as follows:

**Add Equipment:**

- ES04-MIX1 – Mixing Room, water based coatings
- ES01-M3 – 20 injection molding machines
- ES06-CB1, ES06-CB2, ES06-CB3 – equipment for the coating line
- ES07-IG – Internal gluing operation consisting of 2 spot application machines
- ES-GEN, ES-FP, ES-BLR – Exempt equipment (emergency generator, fire pump, boilers)

**Remove Equipment:**

- ES02-FB2 – Flaming booth – Paint Line 2
- ES04 – Mixing Room
- ES03-OV1-OV6 – exempt ovens
- ESWH – exempt water heater
- ESR1, ESR2, ESR3, ESR4, ESR5, ESR6 – various equipment

**Modify Equipment:**

- Modification of some exempt equipment (see application)
- Modification of how the PM from the Coating Line will be controlled: the facility originally planned to control PM using water curtains; they currently plan to control PM using a wet bottom venturi scrubber

**Add synthetic minor limit**

- Due to the modification of the existing paint line (see Note under Emissions Table), the facility has the potential to emit > 100 tpy of PM<sub>10</sub> and PM<sub>2.5</sub>. This permit will contain a synthetic minor limit of < 100 tpy of PM<sub>10</sub> and < 100 tpy of PM<sub>2.5</sub> to avoid Title V applicability.

**Revise synthetic minor limit**



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- The PSD applicability threshold is 250 TPY therefore the synthetic minor limit for PSD avoidance will be changed to <250 TPY of VOC.

Add operating ranges requirement

- This permit will require the owner/operator to establish operating ranges on the scrubbers. These ranges shall be submitted to the Director within 180 days of startup.

### SPECIAL CONDITIONS, MONITORING, LIMITS

(S.C. Regulation 61-62.1, Section II.G) This facility is a potential major source for PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, and HAP emissions. The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 100 tpy of VOC, less than 100 tpy of PM<sub>10</sub>, and less than 100 tpy of PM<sub>2.5</sub> to avoid Title V applicability. The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 10 tpy for any single HAP emission and 25 tpy for any combination of HAP emissions to avoid Title V and MACT applicability.

(S.C. Regulation 61-62.1, Section II.E) This facility is a potential major source for VOC. The facility has agreed to federally enforceable operating limitations to limit its potential to emit to less than 250 tpy for VOC emissions to avoid PSD applicability.

### TESTING

The facility shall conduct an initial source test on the RTO (for VOC and HAP emissions) to show compliance with the less than 100 tpy VOC limit and less than 10/25 tpy Individual/Aggregate HAPs limit and verify 99% RTO control and capture efficiency. The test shall be conducted within 180 days of achieving a maximum bumper production of 60 bumpers per hour and no later than 18 months after startup and every four year(s) thereafter.

### EMISSIONS (CA Permit issued 4-6-2016)

| FACILITY WIDE EMISSIONS |                        |                              |
|-------------------------|------------------------|------------------------------|
| Pollutant               | Uncontrolled Emissions | Controlled/Limited Emissions |
|                         | TPY                    | TPY                          |
| PM                      | 22.0                   | 2.0                          |
| PM <sub>10</sub>        | 22.0                   | 2.0                          |
| PM <sub>2.5</sub>       | 22.0                   | 2.0                          |
| SO <sub>2</sub>         | 0.051                  | N/A                          |
| NO <sub>x</sub>         | 8.30                   | N/A                          |
| CO                      | 5.10                   | N/A                          |
| VOC                     | 586.25                 | <100*                        |
| CO <sub>2</sub> (mass)  | 5800                   | N/A                          |
| CO <sub>2</sub> e       | 5800                   | N/A                          |
| Highest HAP (Xylene)    | 165.31                 | <10*                         |
| Total HAPs              | 226.31                 | <25*                         |



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## EMISSIONS (CA revised during this permitting action)

| FACILITY WIDE EMISSIONS |                        |                              |
|-------------------------|------------------------|------------------------------|
| Pollutant               | Uncontrolled Emissions | Controlled/Limited Emissions |
|                         | TPY                    | TPY                          |
| PM                      | 160.0                  | 3.60                         |
| PM <sub>10</sub>        | 160.0                  | 3.60                         |
| PM <sub>2.5</sub>       | 160.0                  | 3.60                         |
| SO <sub>2</sub>         | 0.028                  | 0.028                        |
| NOx                     | 4.50                   | 4.50                         |
| CO                      | 3.50                   | 3.50                         |
| VOC                     | 520.0                  | <100*                        |
| CO <sub>2</sub> (mass)  | 1,000.00               | N/A                          |
| CO <sub>2</sub> e       | 1,000.00               | N/A                          |
| Highest HAP (Xylene)    | 140.00                 | <10*                         |
| Total HAPs              | 290.00                 | <25*                         |

**Note:** even though one paint line was removed, the remaining paint line has been beefed up and has more robots than the combined number for both previous paint lines (10 now vs. 6 previously). This resulted in increased paint usage by a factor of roughly 2.3X. The paint used in the new application had a higher solids content by a factor of roughly 1.3X and the facility also used a lower transfer efficiency to be more conservative.

## OPERATING PERMIT STATUS

The facility does not currently have an operating permit. Since this construction permit contains federally enforceable limits to avoid being subject to TV and PSD, this facility will eventually operate under a Conditional Major operating permit.

| REGULATORY APPLICABILITY REVIEW |   |
|---------------------------------|---|
| Regulations                     | Comments/Periodic Monitoring Requirements   |
| Section II.E - Synthetic Minor  | The facility emits uncontrolled PM <sub>10</sub> , PM <sub>2.5</sub> , VOC and HAP emissions at major source levels. However, they are taking facility-wide federally enforceable limits to avoid TV, PSD, and MACT applicability.  |
| Standard No. 1                  | Two (2) 0.18 Million Btu/hr each natural gas fired Flame treatment burners and six (6) 1.71 Million Btu/hr each Drying Ovens have their own separate fuel burning stacks and these fuel burning emissions are not routed through RTO; therefore, these unit's fuel burning stacks are subject to this regulation for PM, SO <sub>2</sub> and Opacity. |
| Standard No. 3 (state only)     | The process emissions from the Coating Line (which consists of primer booth, primer drying oven, basecoat booth, basecoat drying oven, clear coat booth, clear  |



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## REGULATORY APPLICABILITY REVIEW

| Regulations    | Comments/Periodic Monitoring Requirements   |
|----------------|---|
|                | <p>coat drying oven, and flash off area) exhaust through single RTO. RTO will be subject to a Standard 3 PM and opacity limit.</p> <p>The Thermal Oxidizer will be classified as an industrial incinerator for the purpose of this standard.</p> <p>The Thermal Oxidizer is subject to the opacity and PM limit specified in Section III (I). Compliance with the PM limit is determined by conducting a performance test. Section VIII (D) (5) requires that a performance test be conducted every 2 years for PM emissions from industrial incinerators but Section VIII (A) contains a provision that allows the Department to waive a test. The performance test for PM emissions was waived because this facility will not use thermal oxidizer to control PM emissions.</p> <p>This facility is required to keep records as specified by Section VI(C).</p> <p>This facility is not required to submit reports as specified by Section VI (D) because these only apply to sources incinerating hazardous or municipal waste.</p> <p>Per Section V (G) (1) and Section V (G) (2), this facility is not required to conduct waste analyses for the Thermal Oxidizer.</p> <p>Section VI(A)(2)(h) states that continuous monitoring for industrial incinerators may be required as in Section VII(A)(2)(d) (Hazardous Waste) or Section VI(A)(2)(e) (Municipal Waste) depending on the material being incinerated or burned and source test results. Since the waste being incinerated is not a hazardous or municipal waste, monitoring is not required under either of these sections.</p> <p>(S.C. Regulation 61-62.5, Standard No. 3, Section IX.D) An exemption from all of the Operator Training Requirements in S.C. Regulations 61-62.5, Standard No. 3, and Section IX.C has been granted for RTO.</p> |
| Standard No. 4 | <p>Paint Mixing area by-passes RTO and exhausts through roof uncontrolled.; therefore, mixing room emissions are subject to 20% opacity. No Process PM; therefore, no PM limit.</p> <p>VOC emissions from Phase 1: Wiping with IPA (manual cleaning) are subject to 20% opacity limit from this standard. Only VOC emissions</p> <p>PM emissions from each of the three sections (primer, basecoat, and clear coat) of the Coating Line are controlled by a wet bottom venturi scrubber for each booth. The WBVS's exhausts through the RTO.</p>  |



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## REGULATORY APPLICABILITY REVIEW

| Regulations            | Comments/Periodic Monitoring Requirements   |
|------------------------|---|
|                        | <p>The coating line is subject to Standard 4 PM and Opacity limits. (PM limit of 1.95 lb/hr based on a process weight rate of 0.331 tph) and a 20% opacity limit).</p> <p>Process emissions from drying ovens and flash off areas are also controlled by RTO; therefore, not subject to this standard.</p>  |
| Standard No. 5         | This facility was not in existence in 1979 or 1980. None of the processes, which are regulated by the regulation, apply.  |
| Standard No. 5.2       | Two (2) 0.18 Million Btu/hr each natural gas fired Flame treatment burners, six (6) 1.71 Million Btu/hr each natural gas fired Drying Ovens and one (1) 0.56 Million Btu/hr natural gas fired hot water heater are less than 10 Million Btu/hr; therefore, are exempt from this standard.   |
| Standard No. 7         | The facility's PTE for VOC > 250 tpy but the facility is taking a facility-wide federally enforceable limit of < 250 tpy for VOC to avoid PSD applicability.  |
| 61-62.6                | Fugitive PM (dust) emissions are controlled in a manner that should not produce undesirable levels of PM emissions.   |
| 40 CFR 60 and 61-62.60 | <p>The facility is not subject to subpart MM (New Source Performance Standard for Automobile and Light Duty Truck Surface Coating Operations) because 60.390(b) exempts operations that are used to coat plastic body components or all plastic automobile or light duty truck bodies on separate coating lines.</p> <p>The facility is not subject to subpart Kb (New Source Performance Standard for Storage Vessels) because facility will not install and operate any tanks for the storage of VOL with a capacity greater than 19,813 gallons.</p> <p>The facility is subject to subpart IIII (New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines) for diesel fired emergency generators.</p> |
| 40 CFR 61 and 61-62.61 | This facility does not contain any processes/operations that emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).   |
| 40 CFR 63 and 61-62.63 | <p>This facility is potentially major source of HAP emissions but the facility is taking a facility-wide federally enforceable limit to stay below 10 tons of Individual HAP and 25 tons of Aggregate HAPs to become minor source of HAP.</p> <p>40 CFR 63 Subpart IIII -National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks<br/>Not Applicable - As a minor source of HAP, the facility is not subject to this subpart.</p> <p>40 CFR 63 Subpart HHHHHH (6H) -National Emission Standards for Hazardous Air Pollutants: Auto Body Refinishing (Area Sources)</p>  |



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## REGULATORY APPLICABILITY REVIEW

| Regulations | Comments/Periodic Monitoring Requirements   |
|-------------|---|
|             | <p>Not Applicable -While this regulation applies to miscellaneous surface coating operations at Area Sources, it is only for facilities that use coating containing chromium, lead, manganese, nickel or cadmium. The safety Data Sheets for the coatings used by MHI do not list any of these HAPs as part of the coatings' composition.</p> <p>40 CFR 63 Subpart JJJJJ (6J) -National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers Area Sources<br/>Not applicable -Subpart JJJJJ applies to facilities that have boilers or process heaters located at area sources. Boilers and process heaters that are gas-fueled only are not subject to this Subpart.</p> <p>40 CFR 63 Subpart XXXXXX (6X) - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Nine Metal Fabrication and Finishing Source Categories<br/>Not applicable -None of the following activities regulated by Subpart XXXXXX will occur at the facility, nor does the facility propose to install and operate any of the activities described by these categories:</p> <ul style="list-style-type: none"> <li>• Pipe Fittings Electrical and Electronic Equipment Finishing Operations;</li> <li>• Fabricated Metal Products;</li> <li>• Fabricated Plate Work (Boiler Shops);</li> <li>• Fabricated Structural Metal Manufacturing;</li> <li>• Heating Equipment, except Electric;</li> <li>• Industrial Machinery and Equipment Finishing Operations;</li> <li>• Iron and Steel Forging;</li> <li>• Primary Metal Products Manufacturing; and</li> <li>• Valves.</li> </ul> <p>40 CFR 63 Subpart PPPP -National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products<br/>This Subpart is not applicable to the proposed paint line as the facility will not be a major source. Area sources are not subject to Subpart PPPP.</p> <p>40 CFR 63 Subpart ZZZZ -National Emission Standards For Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines<br/>The facility will be subject to this subpart for emergency generators.</p> |

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**REGULATORY APPLICABILITY REVIEW**

| <b>Regulations</b> | <b>Comments/Periodic Monitoring Requirements</b>  |
|--------------------|---|
|                    | 40 CFR 63 Subpart CCCCCC (7C) -National Emission Standards for Hazardous Air Pollutants for Area Sources: Paints and Allied Products Manufacturing<br>Not applicable -Subpart CCCCCC states that "Paints and allied products manufacturing does not include: Activities by end users of paints or allied products to ready those materials for application." The facility will only mix paints prior to use; therefore, this regulation does not apply. |
| 61-62.68           | The facility does not store any listed chemical above threshold quantity.   |
| 40 CFR 64          | The facility is not a TV facility; therefore, not subject to this regulation.   |

**AMBIENT AIR STANDARDS REVIEW**

| <b>Regulations</b>          | <b>Comments/Periodic Monitoring Requirements</b>   |
|-----------------------------|--|
| Standard No. 2              | Standard 2 emissions were exempted from modeling; see modeling summary see modeling summary dated March 8, 2016. |
| Standard No. 8 (state only) | This facility has demonstrated compliance through modeling; see modeling summary dated March 8, 2016.            |

**PUBLIC NOTICE**

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II.N and SC Regulation 61-62.70.7(h). The comment period was open from March 30, 2018 to April 28, 2018 and was placed on the BAQ website during that time period.

**SUMMARY AND CONCLUSIONS**

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.